UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,694	02/11/2004	Dan Matlock	MATLOCK-001	9177

34111 7590 03/26/2007

Bay Area Patent Group, LLC
13575 58TH ST. NORTH
SUITE 175
CLEARWATER, FL 33760

EXAMINER	
AMADIZ, RODNEY	
ART UNIT	**PAPER NUMBER**
2629	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/775,694	MATLOCK ET AL.	
	Examiner	Art Unit	
	Rodney Amadiz	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/11/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 11 is objected to because of the following informalities: Claim 11, Line 3, change the word "abject" to "object". Line 4, change the word "having" to "have". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 5, 6, 9-11, 13, 16-18 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Todorox (U.S. Patent 7,046,131—herein referred to as "Todorox").

As to **Claim 1**, Todorox teaches a rotational light emitting display apparatus comprising: a support ***(Fig. 2, Reference Number 10)***; a plurality of light emitting elements affixed to said support and arranged in one or more generally parallel columns thereon ***(Fig. 2, Reference Number 12 and Col. 2, lines 39-42)***; a microcontroller ***(Fig. 1, Reference Number 18)***, said microcontroller controlling the illumination of said plurality of light emitting elements ***(Col. 1, lines 48-52, Col. 2, lines 53-57 and 65-67)***; a power source ***(Fig. 1, Reference Number 16)***, said power source providing electrical

power to the display apparatus ***(Col. 3, lines 26-30)***; and a means for sensing the rotational movement and position of said support about a center of rotation of said support ***(Figs. 1 and 2, Reference Number 14 and Col. 2, line 62—Col. 3, line 10)***.

As to **Claim 2**, Todorox teaches an image map of a predetermined image ***(Col. 2, lines 57-58 and Col. 3, lines 24-26)***; and said microcontroller illuminating said plurality of light emitting elements in accordance with said image map to display a coherent image that is visible by humans ***(Col. 3, lines 19-21 and Col. 3, line 46—Col. 4, line 5)***.

As to **Claim 5**, Todorox teaches said microcontroller controlling the illumination of said plurality of light emitting elements to steady the image in the angular direction of said support about the center of rotation of said support ***(Col. 3, line 62—Col. 4, line 5)***; and wherein said microcontroller controls the illumination of said plurality of light emitting elements to scale the image to fit in an annulus centered about the center of rotation of said support ***(Col. 2, lines 40-58)***.

As to **Claim 6**, Todorox teaches that scaling of the image is a function of rotational frequency of said support ***(Col. 2, lines 40-58 and Col. 3, line 62—Col. 4, line 5)***.

As to **Claims 9, 16 and 20**, Todorox teaches that the plurality of light emitting elements are light emitting diodes ***(Col. 3, lines 43-46)***.

As to **Claims 10 and 17**, Todorox teaches at least two of said plurality light emitting elements emitting a different color light ***(Col. 3, lines 43-46)***.

As to **Claim 11**, Todorox teaches a rotational light emitting display apparatus comprising: at least one support attached to a rotating object at a radial distance from the center of rotation of the rotating object ***(Fig. 2, Reference Number 10)***, said support attached to the rotating object so as to having the same center of rotation of the rotating object ***(See Fig. 2 and note position of reference Number 10)***; a plurality of light emitting elements affixed to said at least one support and arranged in one or more generally parallel rows perpendicular to the angular rotation of the rotating object ***(Fig. 2, Reference Number 12 and Col. 2, lines 39-42)***; an image map of a predetermined animated image ***(Col. 2, lines 57-58 and Col. 3, lines 24-26)***; a microcontroller ***(Fig. 1, Reference Number 18)***, said microcontroller controlling the illumination of said plurality of light emitting elements in accordance with said image map to display a coherent image that is visible by humans of the image stored in said image map about the center of rotation of said support and to steady the image in the angular direction of rotation of said at least one support about the center of rotation of said at least one support ***(Col. 1, lines 48-52, Col. 2, lines 53-57 and 65-67 and Col. 3, lines 19-21 and Col. 3, line 46—Col. 4, line 5)***; and wherein said microcontroller controls the illumination of said plurality of light emitting elements to scale the image to fit in an annulus centered about the center of rotation of said at least one support ***(Col. 2, lines 40-58)***; a power source ***(Fig. 1, Reference Number 16)***, said power source providing electrical power to the display apparatus ***(Col. 3, lines 26-30)***; and a means for sensing the rotational movement of said support about the center of rotation thereof ***(Figs. 1 and 2, Reference Number 14 and Col. 2, line 62—Col. 3, line 10)***.

As to **Claim 13**, Todorox teaches that scaling of the image is a function of rotational frequency of said at least one support ***(Col. 2, lines 40-58 and Col. 3, line 62—Col. 4, line 5)***.

As to **Claim 18**, most of the limitations have already been discussed with respect to Claim 11, with the exception of the rotating object being a vehicle wheel. Todorox teaches the rotating object to be a tire ***(Fig. 2, Reference Number 24)***.

4. Claim 1-3, 5, 6, 9-11, 13, 16-18 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Reim (U.S. Patent 7,079,042—herein referred to as "Reim").

As to **Claim 1**, Reim teaches a rotational light emitting display apparatus comprising: a support ***(Fig. 8, Reference Number 36)***; a plurality of light emitting elements affixed to said support and arranged in one or more generally parallel columns thereon ***(Fig. 8, Reference Number 22)***; a microcontroller ***(Fig. 12, Reference Number 46)***, said microcontroller controlling the illumination of said plurality of light emitting elements ***(Col. 2, lines 21-25, Col. 6, lines 30-33 and Col. 10, lines 28-46)***; a power source ***(Fig. 12, Reference Number 48)***, said power source providing electrical power to the display apparatus ***(Col. 2, lines 35-38)***; and a means for sensing the rotational movement and position of said support about a center of rotation of said support ***(Fig. 12, reference Number 50—and Col. 2, lines 21-25)***.

As to **Claim 2**, Reim teaches an image map of a predetermined image ***(Col. 7, lines 19-21, Col. 9, lines 43-48, Col. 10, lines 28-59 and Col. 11, lines 18-20)***; and said microcontroller illuminating said plurality of light emitting elements in accordance

with said image map to display a coherent image that is visible by humans ***(Col. 9, lines 43-48 and Col. 10, lines 28-46)***.

As to **Claim 3**, Reim teaches said image map is of a predetermined animated image ***(Col. 6, lines 200-40 and Col. 10, lines 28-46)***.

As to **Claim 5**, Reim teaches said microcontroller controlling the illumination of said plurality of light emitting elements to steady the image in the angular direction of said support about the center of rotation of said support ***(Col. 2, lines 21-30 and lines 38-42 and Col. 9, lines 20-54)***; and wherein said microcontroller controls the illumination of said plurality of light emitting elements to scale the image to fit in an annulus centered about the center of rotation of said support ***(Col. 7, lines 4-26 and See Fig. 2)***.

As to **Claim 6**, Reim teaches that the scaling of the image is a function of rotational frequency of said support ***(Col. 2, lines 21-30 and lines 38-42 and Col. 7, lines 4-26 and Col. 9, lines 20-54)***.

As to **Claims 9, 16 and 20**, Reim teaches that the plurality of light emitting elements are light emitting diodes ***(Col. 5, line 48)***.

As to **Claims 10 and 17**, Reim teaches at least two of said plurality light emitting elements emitting a different color light ***(Col. 11, lines 52-55)***.

As to **Claim 11**, Reim teaches A rotational light emitting display apparatus comprising: at least one support attached to a rotating object at a radial distance from the center of rotation of the rotating object ***(Fig. 8, Support 36 and Fig. 1, note position of Reference Element 20)***, said support attached to the rotating object so as

to having the same center of rotation of the rotating object ***(Fig. 1, note position of Reference Element 20)***; a plurality of light emitting elements affixed to said at least one support and arranged in one or more generally parallel rows perpendicular to the angular rotation of the rotating object ***(Fig. 8, Reference Number 22 and note Fig. 1)***; an image map of a predetermined animated image ***(Col. 7, lines 19-21, Col. 9, lines 43-48, Col. 10, lines 28-59 and Col. 11, lines 18-20)***; a microcontroller ***(Fig. 12, Reference Number 46)***, said microcontroller controlling the illumination of said plurality of light emitting elements in accordance with said image map to display a coherent image that is visible by humans of the image stored in said image map about the center of rotation of said support and to steady the image in the angular direction of rotation of said at least one support about the center of rotation of said at least one support ***(Col. 2, lines 21-25, Col. 6, lines 30-33 and Col. 9, lines 43-48 and Col. 10, lines 28-46)***; and wherein said microcontroller controls the illumination of said plurality of light emitting elements to scale the image to fit in an annulus centered about the center of rotation of said at least one support ***(Col. 2, lines 21-30 and lines 38-42 and Col. 7, lines 4-26 and Col. 9, lines 20-54)***; a power source ***(Fig. 12, Reference Number 48)***, said power source providing electrical power to the display apparatus ***(Col. 2, lines 35-38)***; and a means for sensing the rotational movement of said support about the center of rotation thereof ***(Fig. 12, reference Number 50—and Col. 2, lines 21-25)***.

As to **Claim 13**, Reim teaches that the scaling of the image is a function of rotational frequency of said at least one support ***(Col. 2, lines 21-30 and lines 38-42 and Col. 7, lines 4-26 and Col. 9, lines 20-54)***.

As to **Claim 18**, most of the limitations have already been discussed with respect to Claim 11, with the exception of the rotating object being a vehicle wheel. Reim teaches the rotating object to be a tire ***(Fig. 1, Reference Number 12)***.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 4, 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reim.

As to **Claims 4, 12 and 19**, Reim does not teach the animated image is of a vehicle instrument selected from the group consisting of a speedometer, accelerometer and power meter. However, the specification shows no apparent benefits for having an image of a vehicle instrument. Therefore, having an animated image of a vehicle instrument is clearly a design choice based on the specific requirement of the claim. Furthermore, it would have been obvious to one of ordinary skill in the art to include any animated image, including that of any vehicle instrument, into the rotational light emitting display apparatus taught by Reim, since any animated image would provide an adequate visual illustration of a dynamic image.

7. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reim in view of Olds et al. (USPGPUB 2004/0130905—herein referred to as "Olds").

As to **Claims 7 and 14**, Reim does not teach that the means for sensing the rotational movement of said support about a center of rotation of said support comprises a magnetic source and a magnetic-field sensor. Examiner cites Olds to teach a magnetic source and a magnetic-field sensor for sensing the rotational movement of a support about a center of rotation of said support ***(Pg. 6, ¶ 0084)***. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the use of a magnetic source and a magnetic-field sensor as taught by Olds in the rotational light emitting display apparatus taught by Reim in order to detect and determine the rotational speed of the wheel of a moving vehicle ***(Pg. 6, ¶ 0084)***.

8. Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reim in view of Gloodt et al. (USPGPUB 2003/0151924—herein referred to as "Gloodt").

As to **Claims 8 and 15**, Reim fails to teach a coil, wherein said power source is derived from electrical current generated in the coil when passed by the magnetic source. Examiner cites Gloodt to teach a coil, wherein said power source is derived from electrical current generated in the coil when passed by the magnetic source ***(Pg. 2, ¶ 0024)***. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the use of a coil to generate power as taught by Gloodt in the rotational light emitting display apparatus taught by Reim in order to be

more power efficient.

9. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Todorox in view of Olds et al. (USPGPUB 2004/0130905—herein referred to as "Olds").

As to **Claims 7 and 14**, Todorox does not teach that the means for sensing the rotational movement of said support about a center of rotation of said support comprises a magnetic source and a magnetic-field sensor. Examiner cites Olds to teach a magnetic source and a magnetic-field sensor for sensing the rotational movement of a support about a center of rotation of said support ***(Pg. 6, ¶ 0084)***. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the use of a magnetic source and a magnetic-field sensor as taught by Olds in the rotational light emitting display apparatus taught by Todorox in order to detect and determine the rotational speed of the wheel of a moving vehicle ***(Pg. 6, ¶ 0084)***.

10. Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Todorox in view of Gloodt.

As to **Claims 8 and 15**, Todorox fails to teach a coil, wherein said power source is derived from electrical current generated in the coil when passed by the magnetic source. Examiner cites Gloodt to teach a coil, wherein said power source is derived from electrical current generated in the coil when passed by the magnetic source ***(Pg. 2, ¶ 0024)***. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the use of a coil to generate power as taught by

Gloodt in the rotational light emitting display apparatus taught by Todorox in order to be more power efficient.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney Amadiz whose telephone number is (571) 272-7762. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

R.A.

R.A.
3/13/07
Division 2629

Sumati Lefkowitz

SUMATI LEFKOWITZ
SUPERVISORY PATENT EXAMINER